

FIG. 1

3 AUTHENTICATION DEVICE

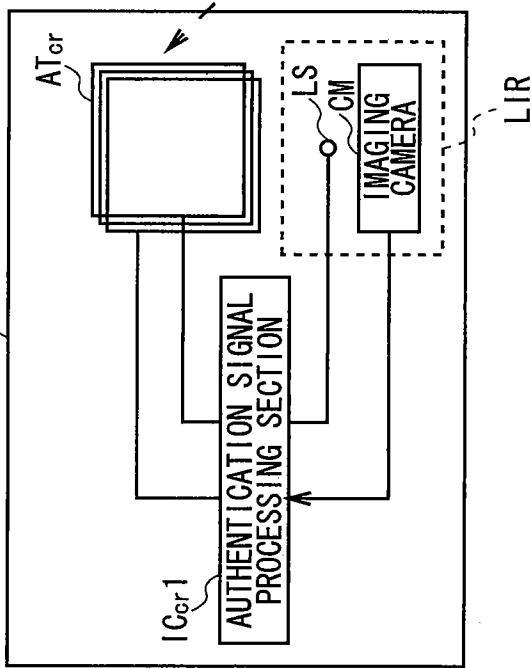
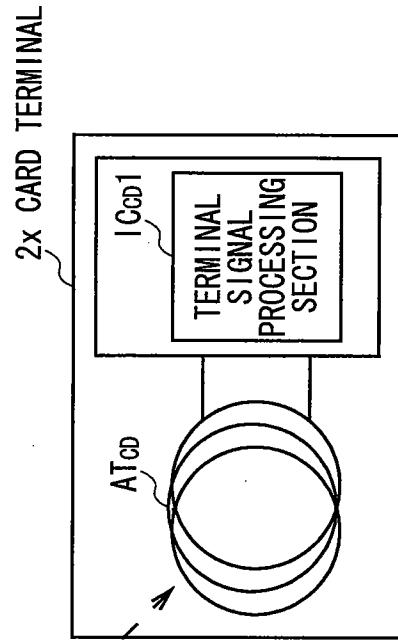


FIG. 2

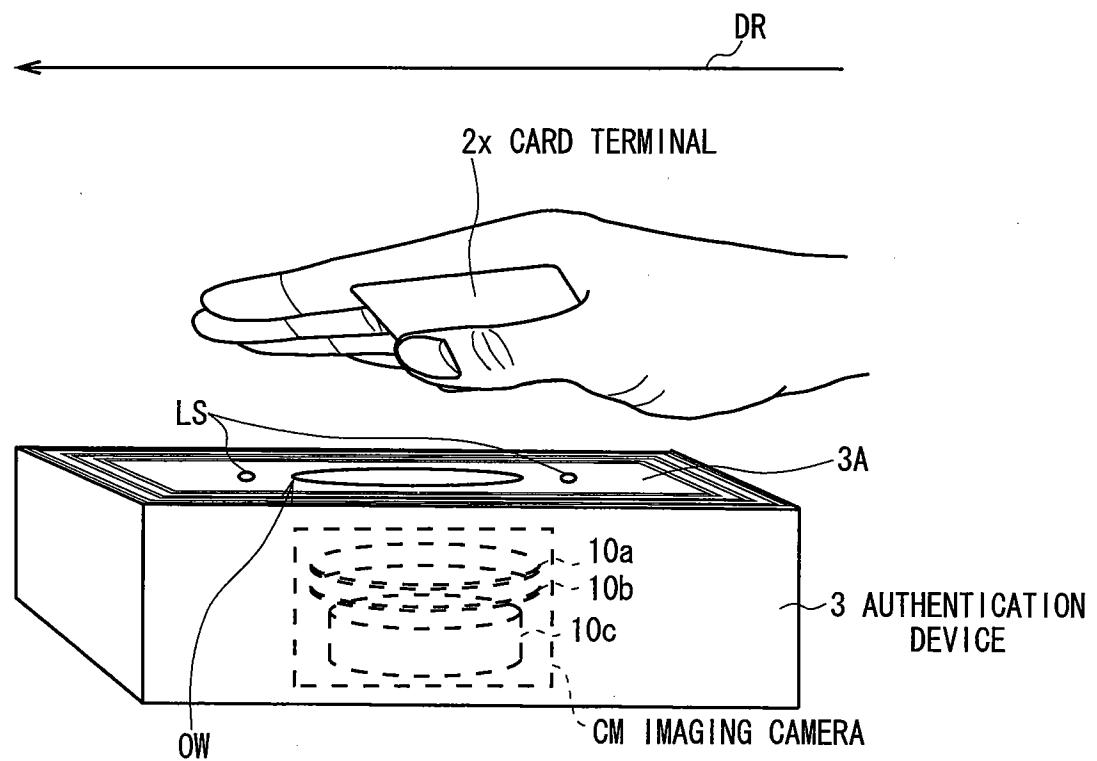


FIG. 3

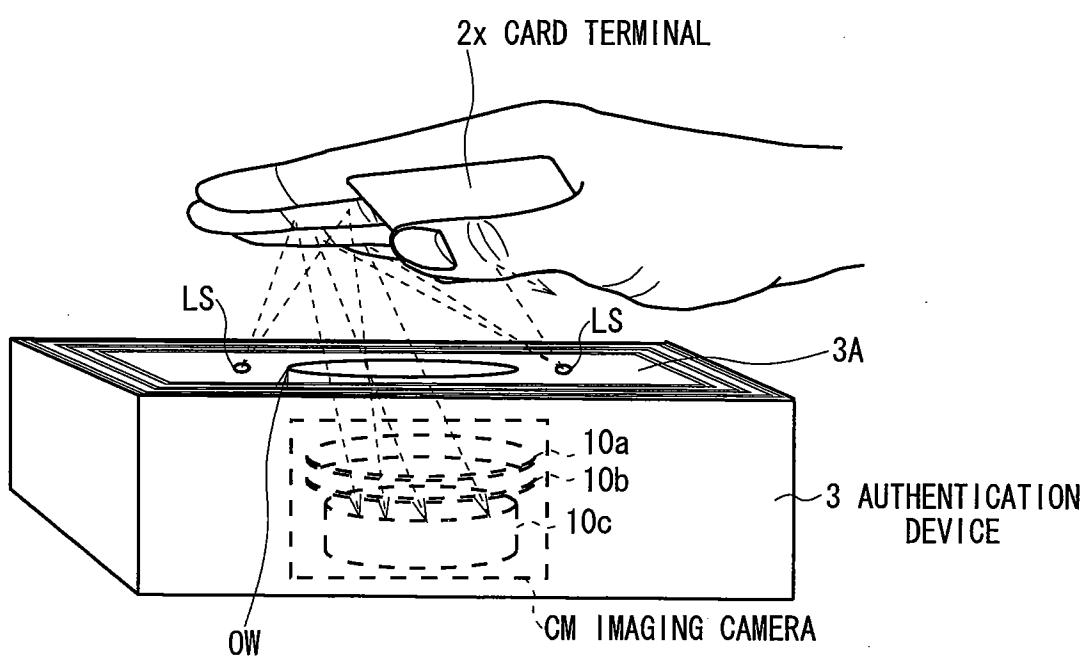


FIG. 4

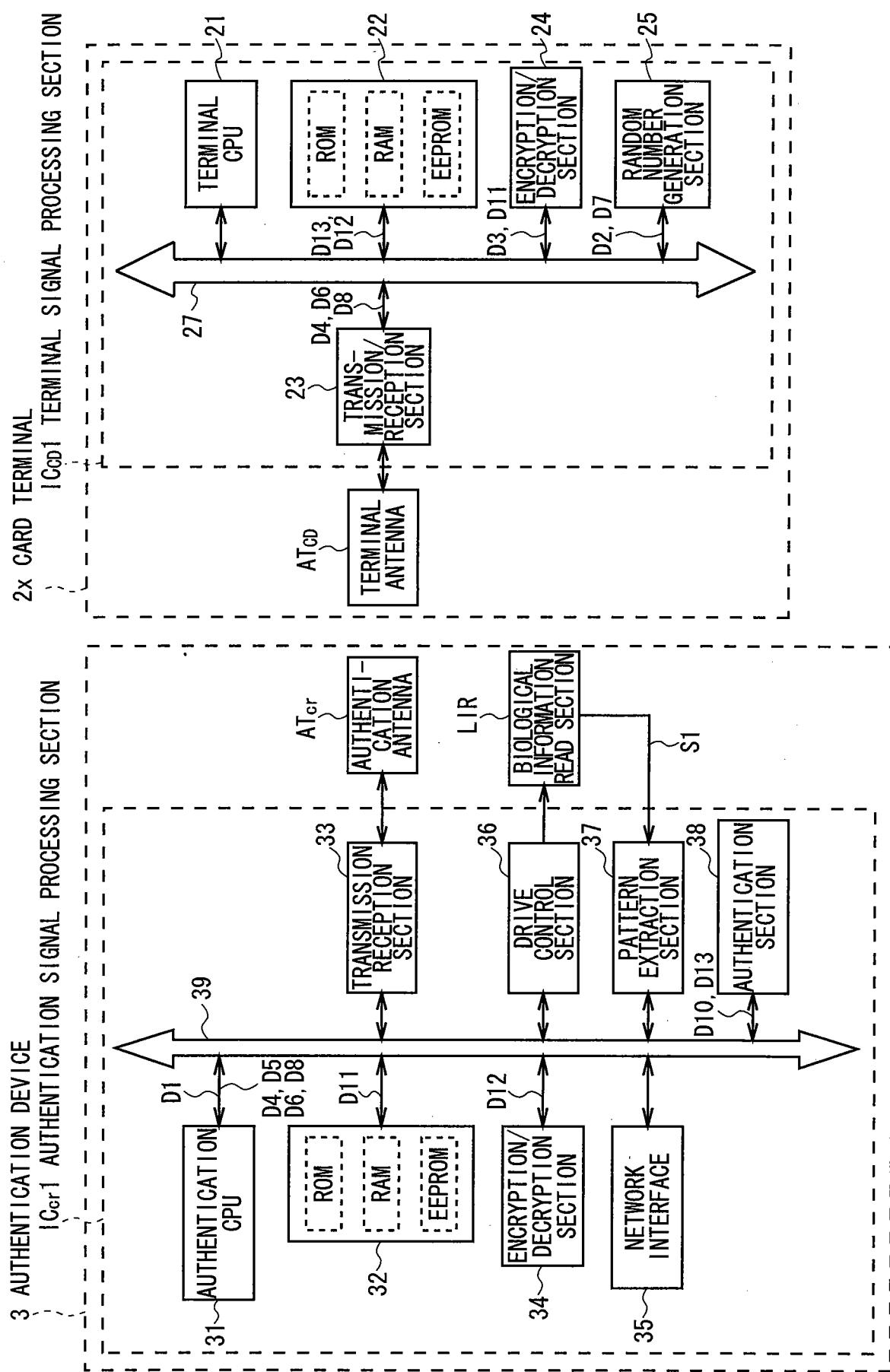


FIG. 5

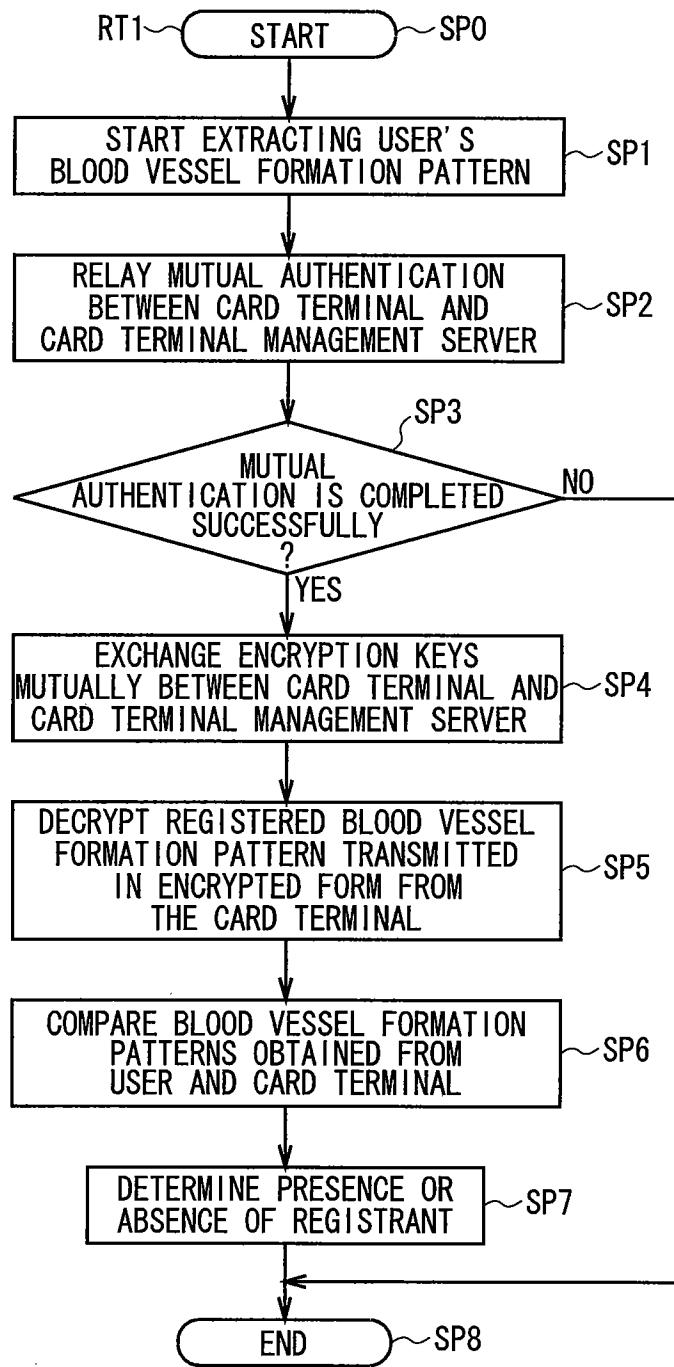


FIG. 6

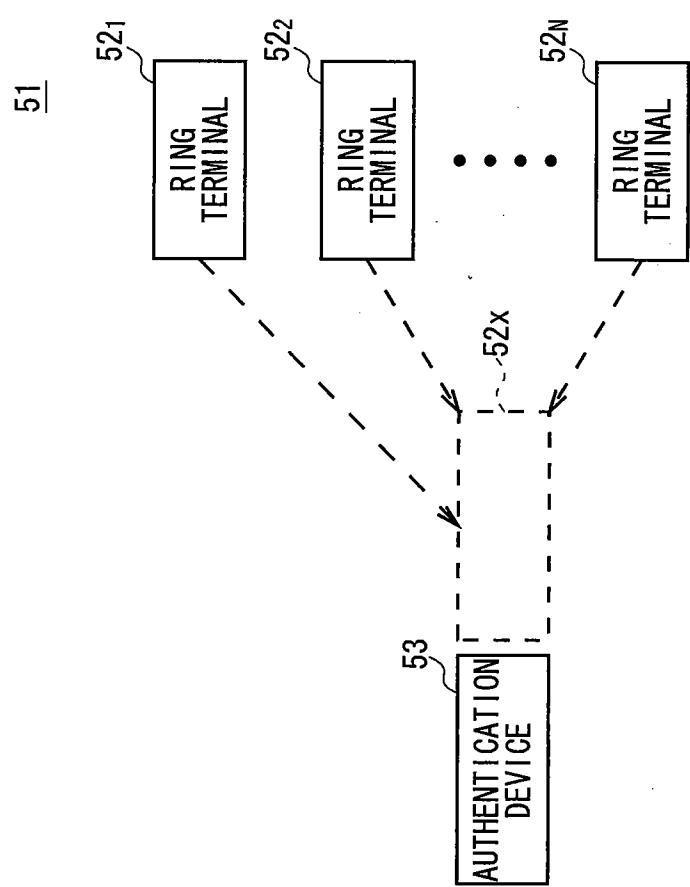


FIG. 7

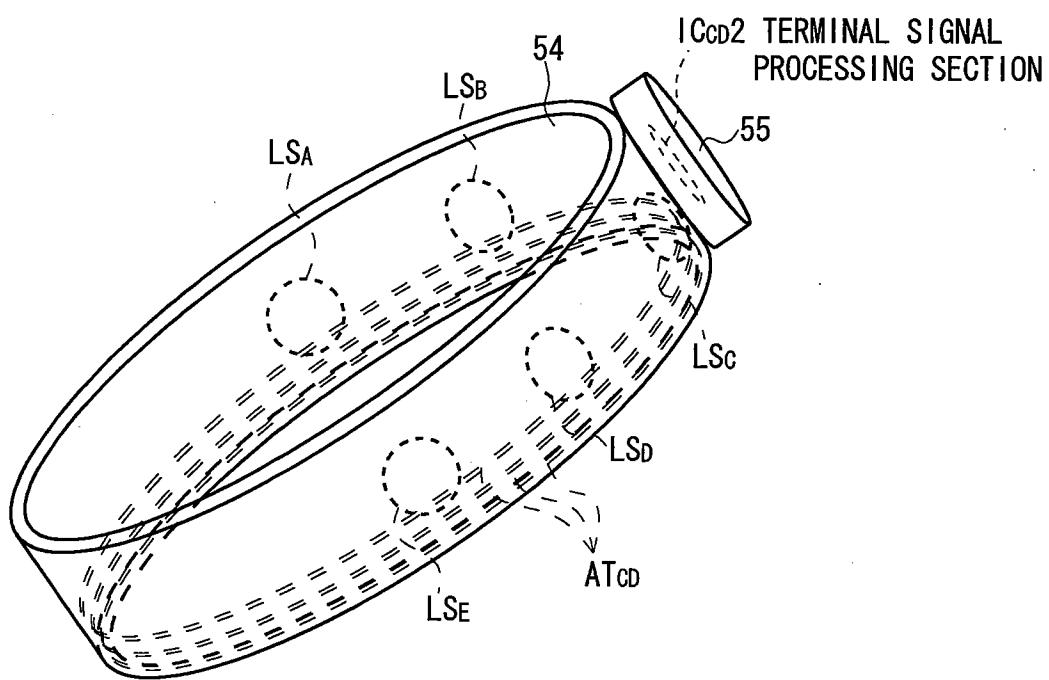


FIG. 8

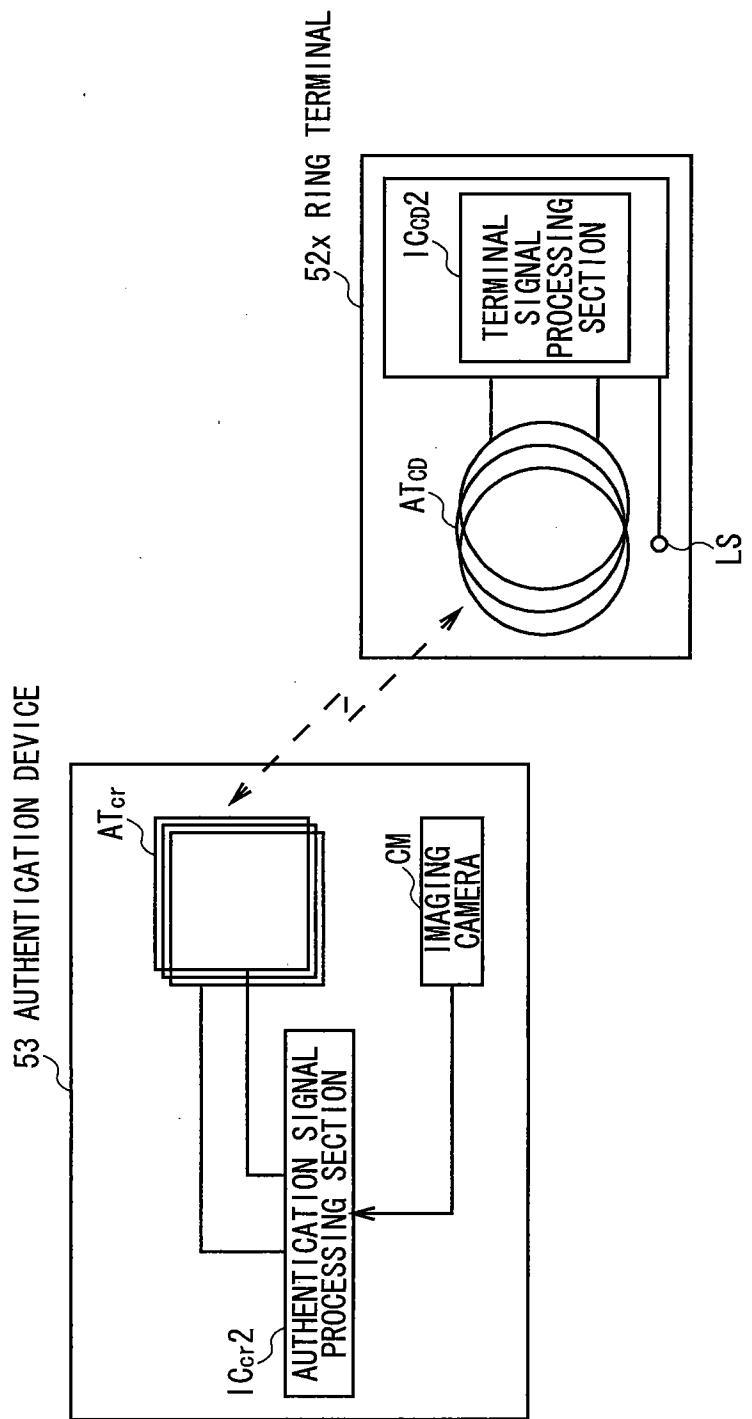
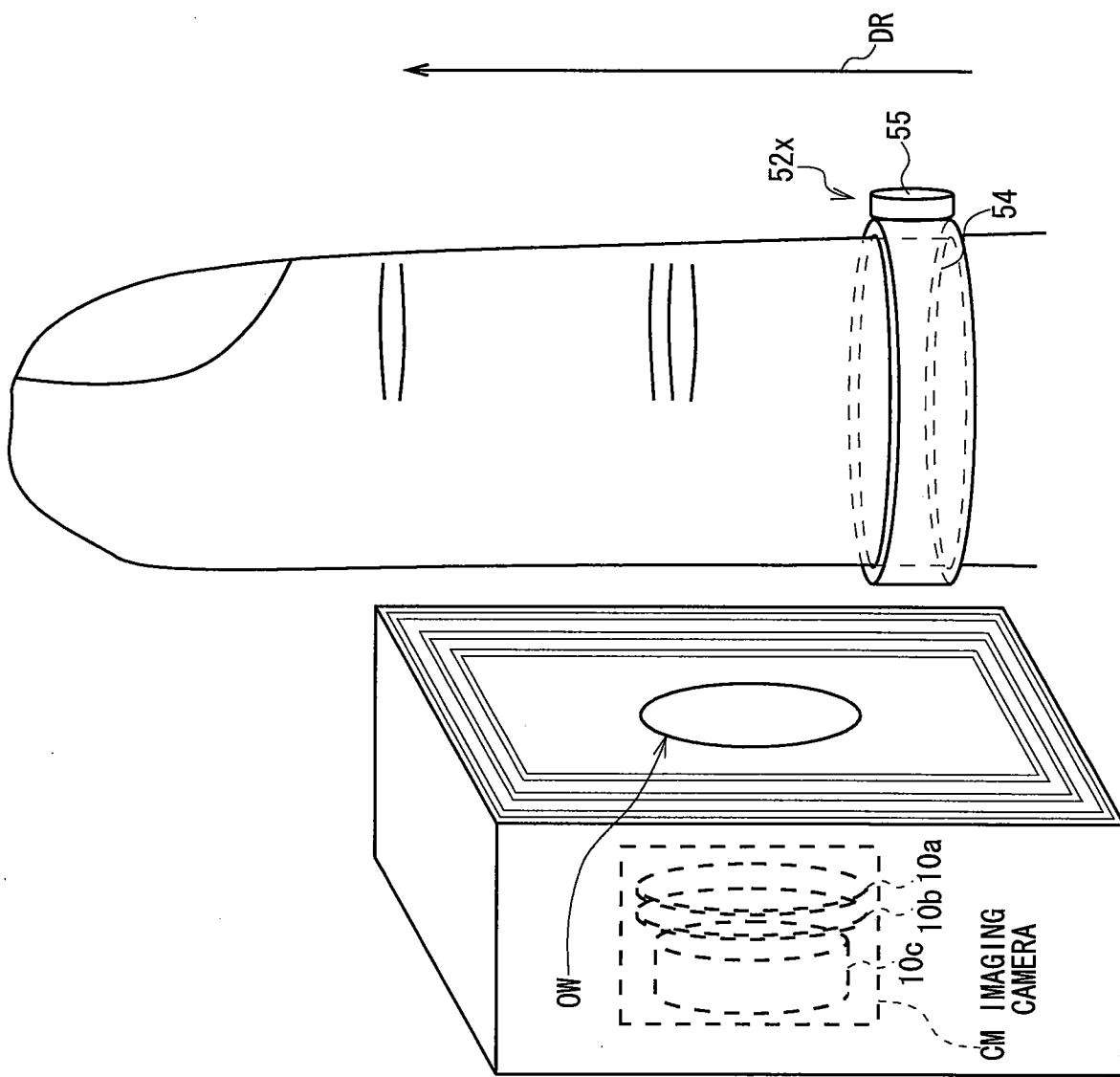
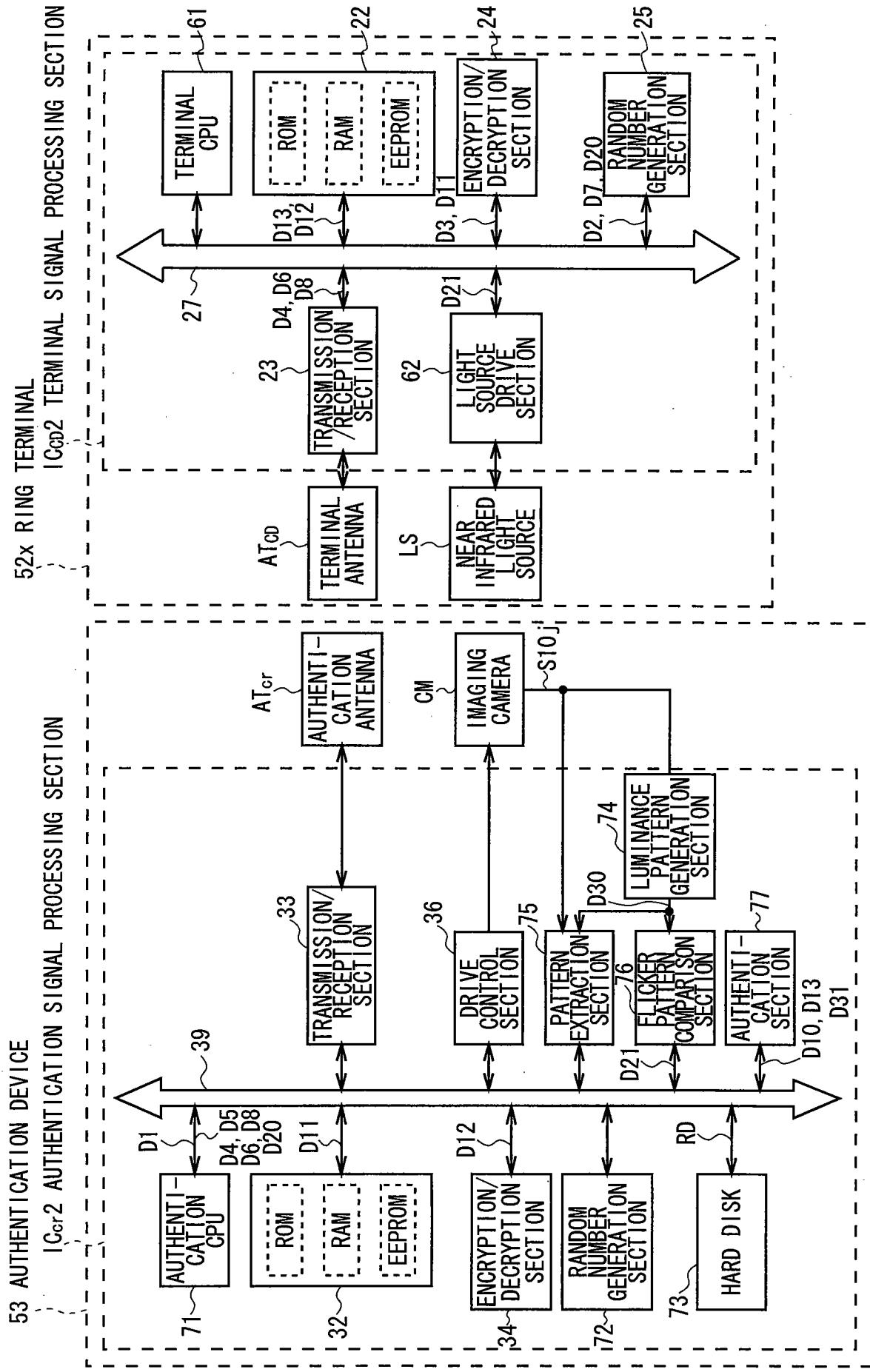


FIG. 9

FIG. 10





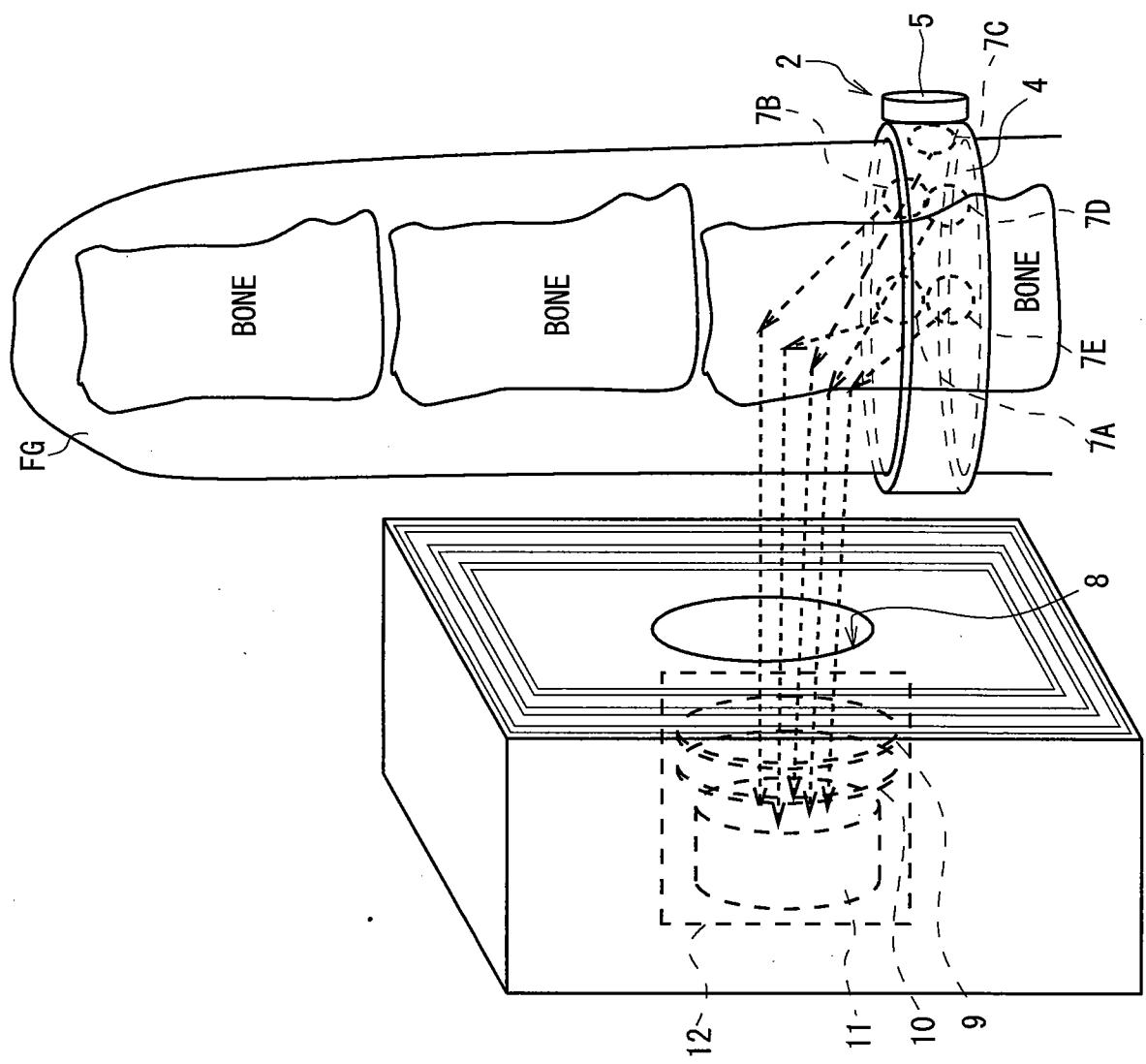


FIG. 12

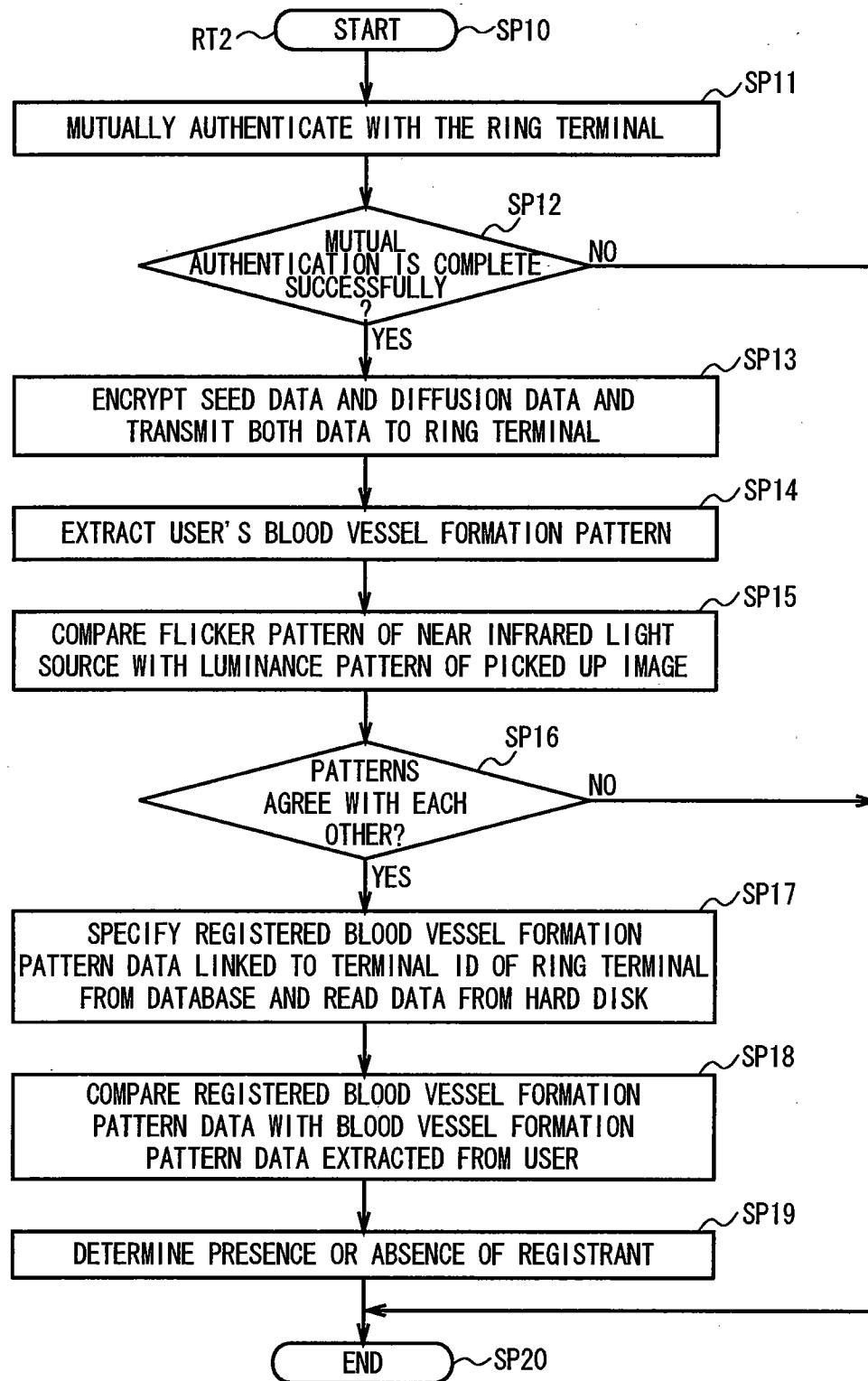


FIG. 13

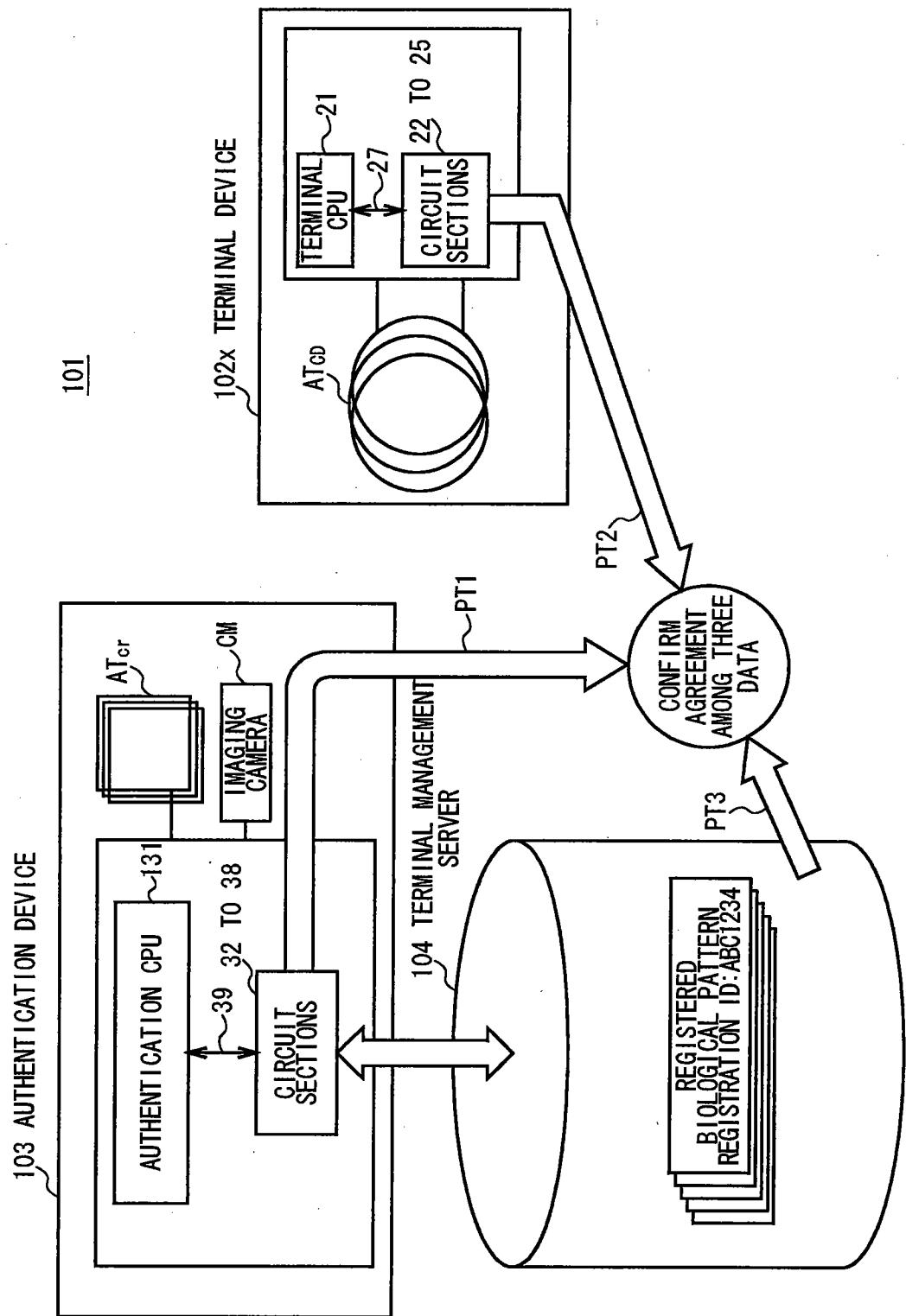


FIG. 14

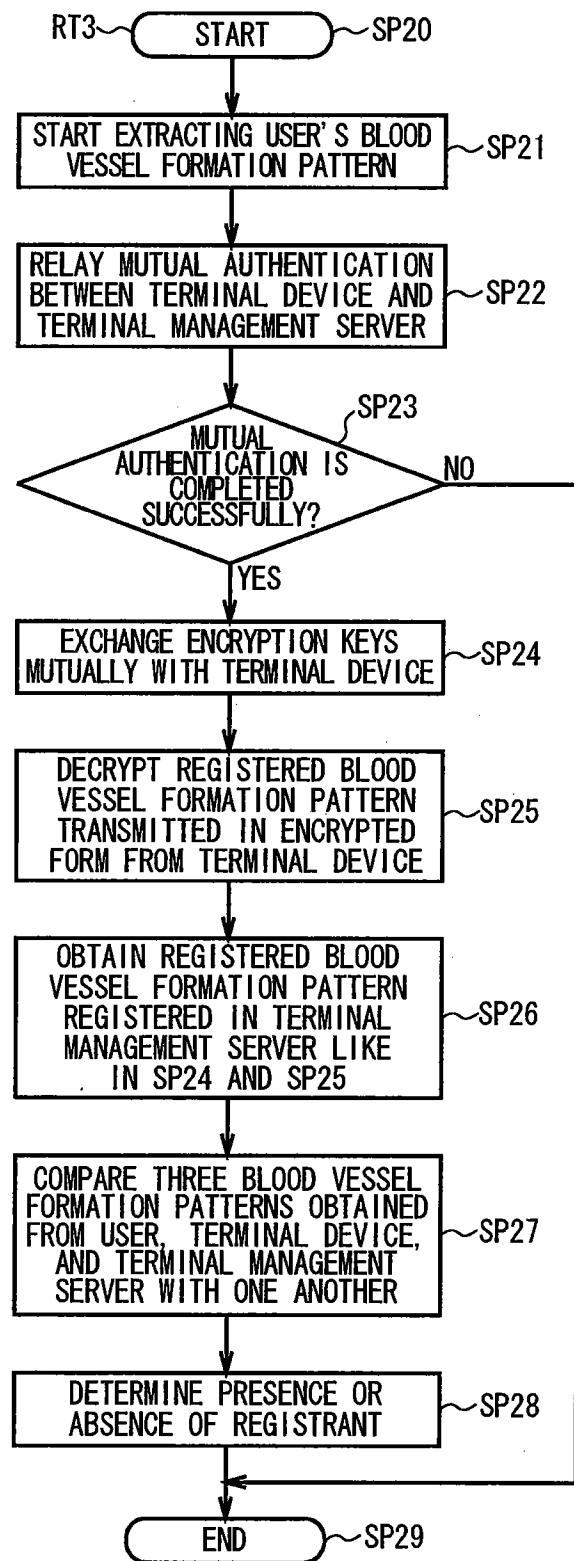
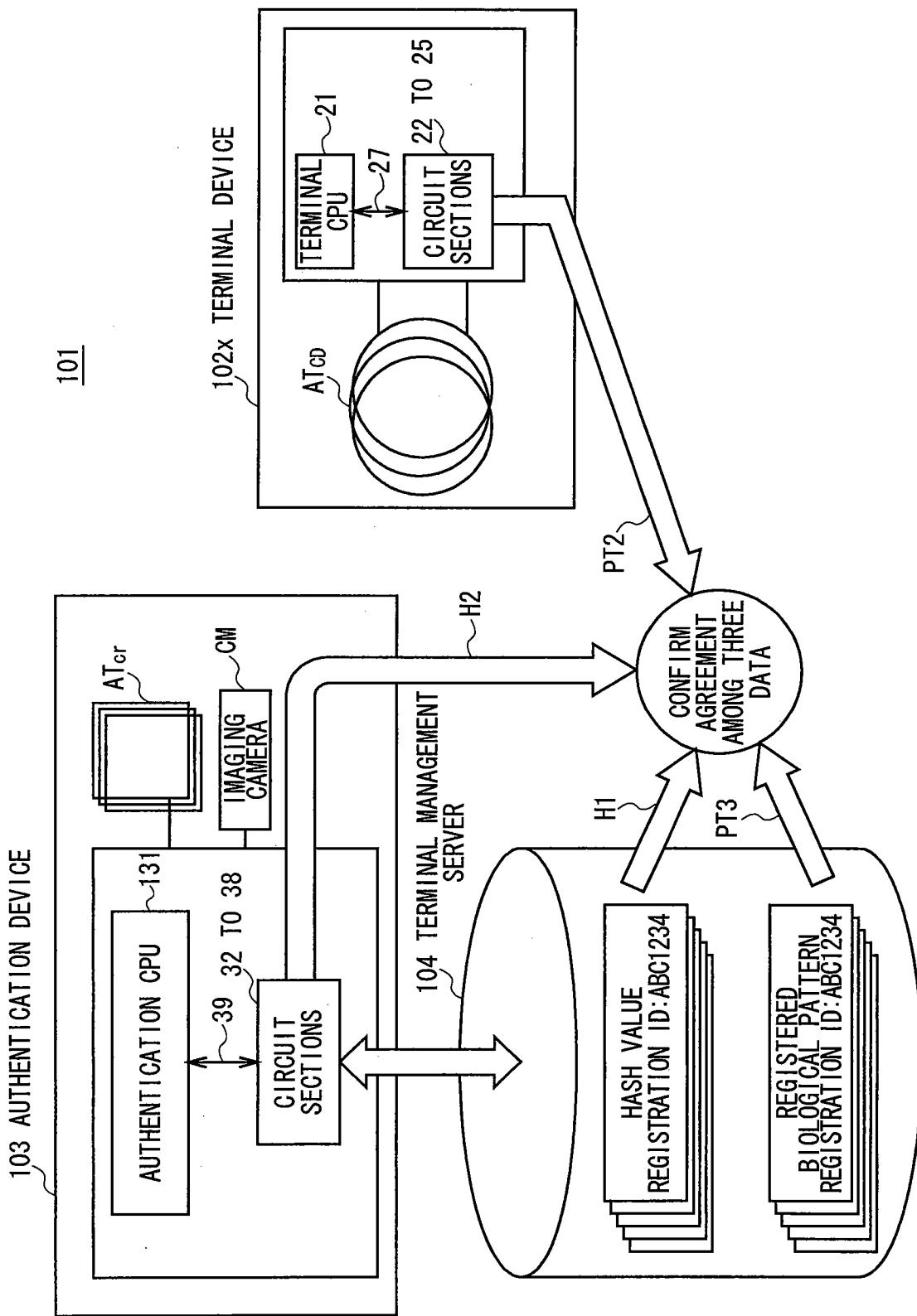


FIG. 15

FIG. 16



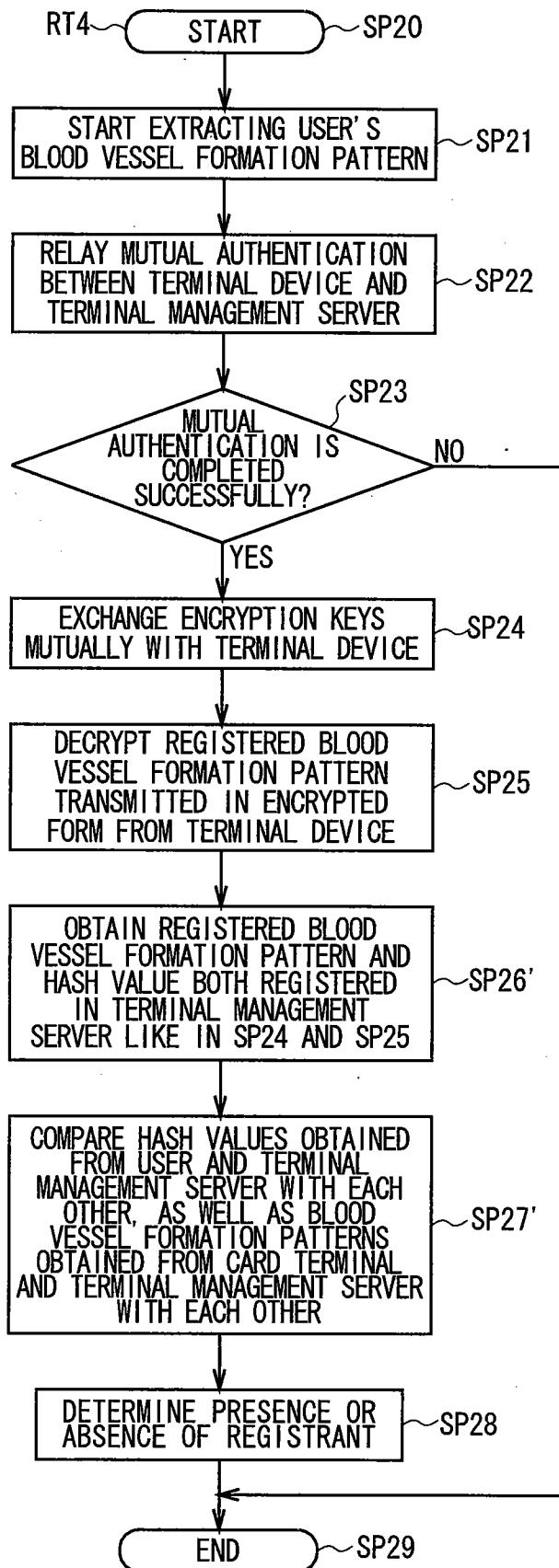
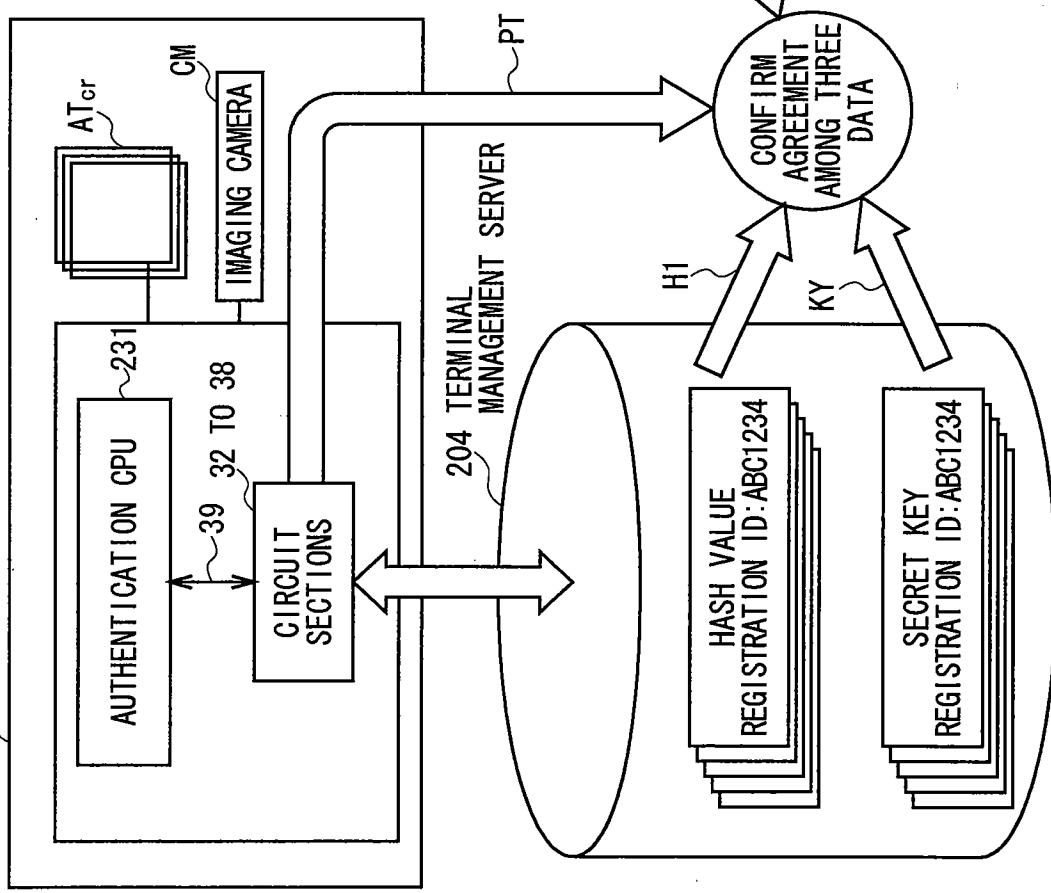


FIG. 17

203 AUTHENTICATION DEVICE



201

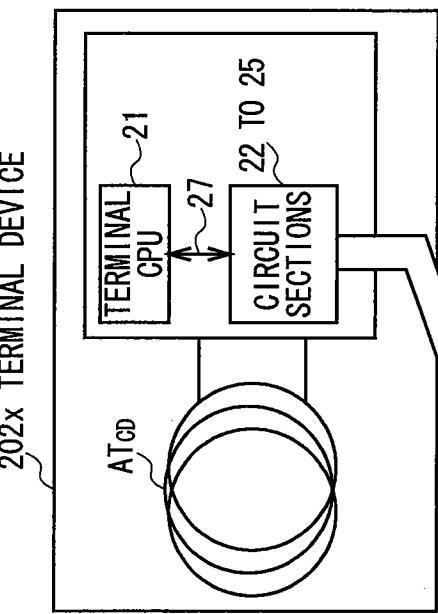


FIG. 18

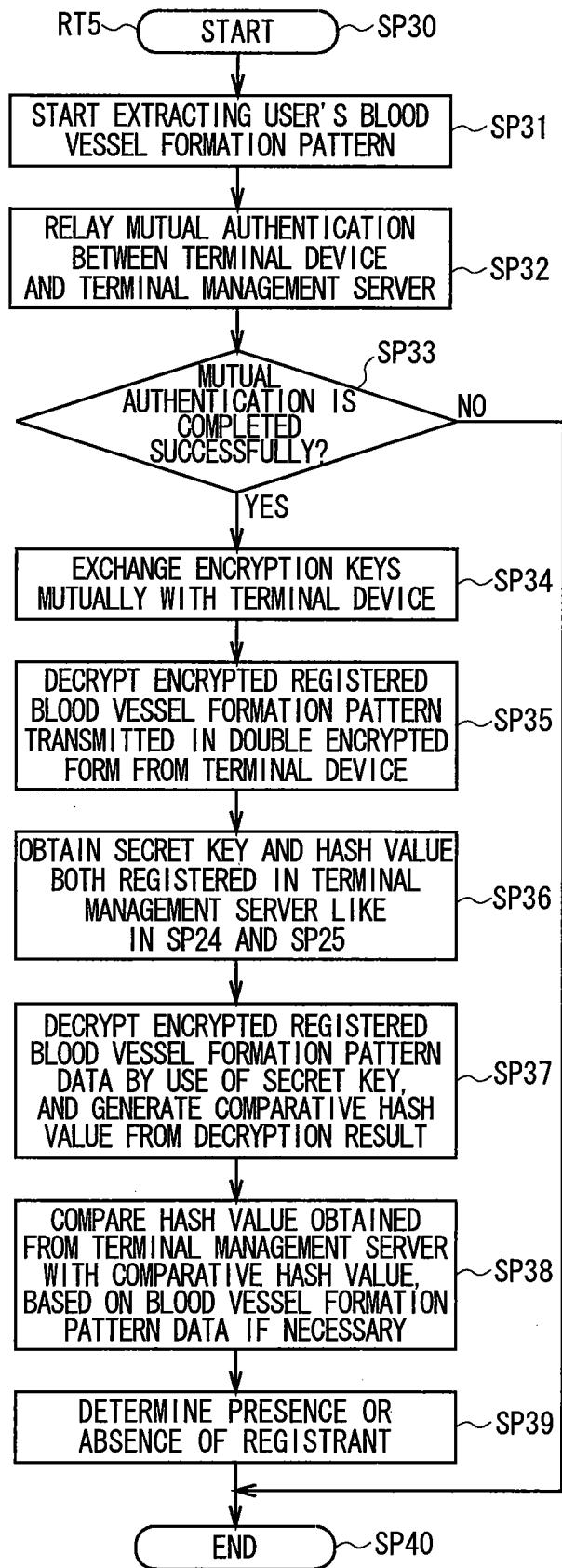
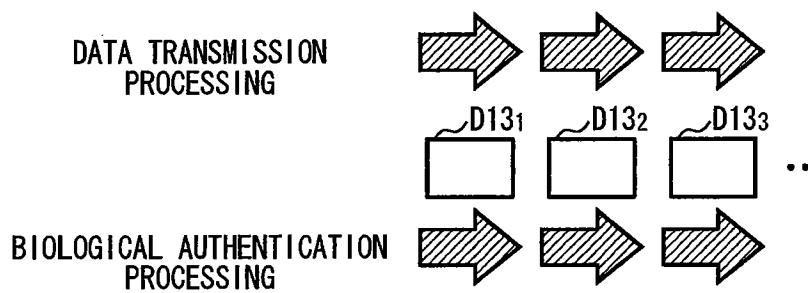


FIG. 19

(A) NO COMMUNICATION ERRORS



(B) COMMUNICATION ERROR D132

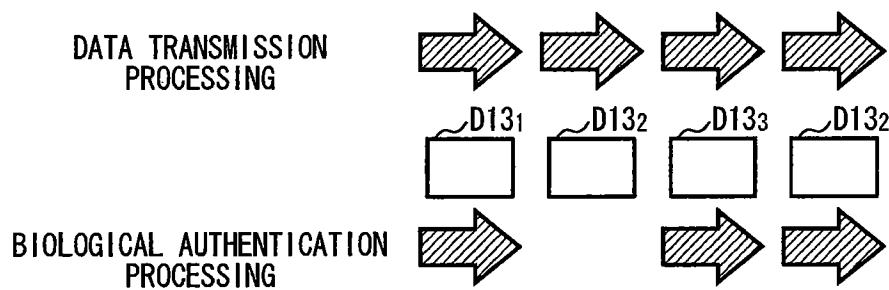


FIG. 20

EXPLANATION OF REFERENCED NUMERALS

1, 51, 101, 201.....INFORMATION PROCESSING SYSTEM, 2i (i=1, 2, ..., N), 2x.....CARD TERMINAL, 52i (i=1, 2, ..., N), 52x.....RING TERMINAL, 102x, 202x.....TERMINAL DEVICE, 3, 53, 103, 203.....AUTHENTICATION DEVICE, 4.....CARD TERMINAL MANAGEMENT SERVER, 104, 204.....TERMINAL MANAGEMENT SERVER, 21, 61.....TERMINAL CPU, 31, 71, 131, 231.....AUTHENTICATION CPU, 22, 32.....INTERNAL MEMORY, 23, 33.....TRANSMISSION/RECEPTION SECTION, 24, 34.....ENCRYPTION/DECRYPTION SECTION, 25.....RANDOM NUMBER GENERATION SECTION, 35.....NETWORK INTERFACE, 36.....DRIVE CONTROL SECTION, 37, 75.....PATTERN EXTRACTION SECTION, 38, 77.....AUTHENTICATION SECTION, 73.....HARD DISK, 74.....LUMINANCE PATTERN GENERATION SECTION, 76.....FLICKER PATTERN COMPARISON SECTION, CM.....IMAGING CAMERA, LS.....NEAR INFRARED LIGHT SOURCE, ATCD.....TERMINAL ANTENNA, ATcr.....AUTHENTICATION ANTENNA, ICCD1, ICCD2.....TERMINAL SIGNAL PROCESSING SECTION, ICcr1, ICcr2.....AUTHENTICATION SIGNAL PROCESSING SECTION, RT1.....FIRST AUTHENTICATION PROCESSING PROCEDURE, RT2.....SECOND AUTHENTICATION PROCESSING PROCEDURE, RT3.....THIRD AUTHENTICATION PROCESSING PROCEDURE, RT4.....FOURTH AUTHENTICATION PROCESSING PROCEDURE, RT5.....FIFTH AUTHENTICATION PROCESSING PROCEDURE